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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,419	11/12/2003	Michael J. Ryan	115445-002	1785

7590

10/05/2005

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EXAMINER

DAVIS, ROBERT B

ART UNIT	PAPER NUMBER
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1722

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/714,419

Applicant(s)

RYAN ET AL.

Examiner

Robert B. Davis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-20 is/are rejected.
- 7) ☒ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/12/04, 4/21/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Weber (US 2002/0100858 A1: figures 2-8; paragraphs 8, 19 and 30).

Weber teaches a hollow mold member comprising: a first nickel shell (10) forming the mold surface, hollow heating/cooling tubes (14) placed upon the back surface of the first shell, and a second nickel shell (22) applied to the back of the cooling tubes (14) and shell (10) to form a hollow mold member for molding plastic articles. The inner shell is uniformly deposited (paragraph 19, lines 11-14) by a nickel vapor deposition process on a mandrel to form a uniform thickness. The language “for use in blow molding” is intended use and the mold is clearly capable of forming a blow-molded article. The tubes (14) constitute reinforcement for the mold.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 6 and 9-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosato et al (Blow Molding Handbook, pages 217-219 and 282-284) taken together with Uhlig (4,206,171: figures 1-2 and column 5, line 64 to column 6, line 1).

Rosato et al disclose a blow mold (figure 7a-1 to 7a-5 pages 218-219). The blow mold of figure 7a-1 has a mold cavity inner wall, a mold cavity back plate, walls spacing the inner wall from the back plate to define a hollow chamber. The hollow chamber has cooling water flowing in and out as shown to cool the blown article. The mold also has mold guide pins and a bottom pinch-off. The inner wall and back plate are integral as required by the presence of the cooling cavity to prevent leakage and proper strength during molding and clamping of the mold in the blow molding apparatus. Figure 7a-2 illustrates a mold with parting line vents. Figure 7a-2 illustrates a mold having a hardened steel bushing. Figure 7a-5 illustrates a mold having a handle cavity portion and a pinch-off associated therewith to cutout the flash from the portion of the container

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adjacent the handle. The reference also discloses a hollow vent bolt (figure 7.47a-6) in a blow mold. The reference does not disclose the mold being made of nickel.

Uhlig discloses a blow mold (12) having a molding shell (20, 23) made of nickel and a backing member (15, 16) spaced from the shell by a cooling chamber (21). The reference states that nickel is used to accurately define the cavity during the fabrication process against a master.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of Rosato et al (figure 7.1a-1) by manufacturing the mold out of nickel as disclosed by Uhlig for the purpose of forming an accurate molding cavity due to the nickel and the manufacturing process used to make the mold. It would have been further obvious to modify the mold of Rosato et al (fig. 7.1a-1) by using parting line vents as disclosed in figure 7.1a-2 for the purpose of adequately venting the mold cavity during the blowing process to avoid defects in the molded article. It would have been further obvious to modify the mold of Rosato et al (fig. 7.1a-1) by using a hardened steel bushing (fig. 7.1a-3) to mate with the guide pins for the purpose of aligning the mold halves upon closing of the mold halves. It would have been further obvious to modify the mold of Rosato et al (fig. 7.1a-1) by using a cavity having a handle portion with a pinch off as disclosed in fig. 7.1a-5 for the purpose of forming a container having a handle. It would have been further obvious to modify the mold of Rosato et al (fig. 7.1a-1) by using a venting bolt (figure 7.47a-6) for the purpose of connecting mold members and allowing adequate venting of the molding cavity during the molding process.

Allowable Subject Matter

6. Claims 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach or suggest the mold of claim 5, wherein the hollow support is a first hollow support comprising a plurality of additional hollow supports spaced-apart and extending between the outer wall of the mold member and the inner wall of the mold member for reinforcement of the mold member and for causing augmentation of the flow of coolant fluid within the hollow interior. The prior art does not teach or suggest the mold of claim 1, wherein the outer wall is formed with grooves, which protrude into the hollow interior for causing augmentation of the flow of coolant fluid with the hollow interior.

Conclusion

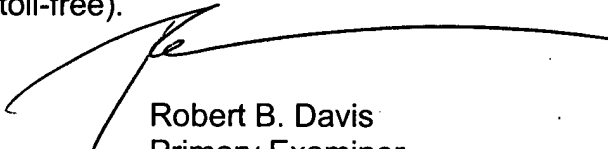
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The remaining references show the state of the art of hollow blow molding members.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert B. Davis whose telephone number is 571-272-1129. The examiner can normally be reached on Monday-Friday 9-5:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert B. Davis
Primary Examiner
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10/11/05